

REMARKS

Claims 1-15 were pending in the application when last examined, all of which stand rejected. Claims 1-3 are canceled, and Claims 4, 11, 12, and 15 are amended.

Claim Objections

Claim 1 is objected to but canceled.

Claim 11 is objected to because of the phrase “corresponding to the first and second conductive lines, thereby exposing” on lines 10-11. This phrase has been deleted.

Claim 12 is objected to because of the phrase “transparent layer.” This phrase has been replaced with “transparent electrode,” per the Examiner’s suggestion.

Claim 15 has also been amended per the Examiner’s suggestion.

Claim Rejections – 35 USC §102

Claim 1 is rejected under 35 USC 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0196898 to Kameshima (“Kameshima”). Claim 1 is canceled.

Claim Rejections – 35 USC §103

Claims 2 and 3 are rejected under 35 USC 103(a) as being unpatentable over Kameshima in view of U.S. Patent Application Publication No. 2002/0149318 to Jeon et al. (“Jeon”). Claims 2 and 3 are canceled.

Claims 4, 6, and 8 are rejected under 35 USC 103(a) as being unpatentable over U.S. Patent Application Publication No. 2001/0049154 to Choo et al. (“Choo”) in view of Kameshima.

Claim 4 is patentable over Choo and Kameshima because it recites that “the storage capacitor comprises a capacitor electrode, a first transparent electrode formed directly on the capacitor electrode, an insulating layer, and the pixel electrode formed directly on the insulating layer.” As shown in FIG. 5 of the Application, the storage capacitor includes capacitor electrode 226, a first electrode 231, an insulating layer 240, and the pixel electrode 260 arranged in the

manner recited in Claim 4. In contrast, Choo's storage capacitor S, as shown in Choo's FIG. 1, has a first capacitor electrode 58 and an insulating dielectric layer 15 directly on the first capacitor electrode 58, without any structure that would correspond to the "first transparent electrode." Kameshima fails to cure this deficiency in Choo because it also does not teach or suggest a storage capacitor having the configuration of Claim 4. Hence, Claim 4 is patentable over Choo and Kameshima.

Dependent Claim 5 is rejected under 35 USC 103(a) as being unpatentable over Choo in view of Kameshima and further in view of Jeon. This rejection is based on the assumption that Choo and Kameshima disclose all the limitations of Claim 4 from which Claim 5 depends. However, as explained above, this is not the case. Further, Jeon fails to cure the deficiency in Choo and Kameshima because it, too, fails to disclose the type of storage capacitor recited in Claim 4. Hence, Claim 5 is patentable over Choo, Kameshima, and Jeon.

Dependent Claims 7, 9, and 10 are rejected under 35 USC 103(a) as being unpatentable over Choo in view of Kameshima and further in view of U.S. Patent No. 6,075,248 to Jeromin et al. ("Jeromin"). This rejection is based on the assumption that Choo and Kameshima disclose all the limitations of Claim 4 from which Claims 7, 9, and 10 depend. However, as explained above, this is not the case. Further, Jeromin fails to cure the deficiency in Choo and Kameshima because it, too, fails to disclose the type of storage capacitor recited in Claim 4. Hence, Claim 5 is patentable over Choo, Kameshima, and Jeromin.

Claims 11 and 12 are rejected under 35 USC 103(a) as being unpatentable over Choo in view of U.S. Patent No. 5,300,784 to Fender et al. ("Fender").

Claim 11 is patentable over Choo and Fender for a number of reasons. First, Claim 11 recites "partially removing the organic layer ... by an exposure and development process" This process is described on page 9, paragraph [57] of the Application. In contrast, Choo teaches etching the second insulation layer 83/183, which is alleged to correspond to the "organic layer" (Choo, paragraph [0018] and paragraph [0052]). Choo fails to teach or suggest removing parts of the second insulation layer by "an exposure and development process."

Furthermore, Claim 11 recites “partially removing the insulating layer to form a contact hole extending to the first transparent electrode on the data pad and a drain contact hole extending to the drain electrode” As shown, for example in FIG. 5 of the Application, the insulating layer 240 is removed to form a contact hole 262, which extends to the first transparent electrode 230. The same Figure shows the drain contact hole 264 extending to the drain electrode 225. This process allows “forming a second transparent electrode ... directly connected to the drain electrode and the first transparent electrode on the data pad,” which is also recited in Claim 11. Claim 11 is distinguishable from Choo, whose FIG. 3E shows a drain contact hole 85 and a capacitor electrode contact hole 95 but the capacitor electrode contact hole 95 does not extend to the “first transparent electrode” (element 58 in Choo’s FIG. 3E). There is no contact hole in Choo’s insulating layer 81 that extends to the first transparent electrode 58.

For the above reason, Claim 11 is also patentable over Choo and Fender because it recites that “the second transparent electrode [is] directly connected to the first transparent electrode on the data pad and the drain electrode” As shown in FIG. 5 of the Application, the second transparent electrode (260) directly connects to the first transparent electrode 230 via the contact hole 262. This is not taught or suggested in Choo, which does not show a contact hole that extends to the first transparent electrode 58 (see Choo, FIG. 3E).

Fender, which describes a selenium alloy X-ray imaging member, fails to cure the deficiency in Choo because it does not teach or suggest the structure recited in Claim 11. Hence, Claim 11 is patentable over a combination of Choo and Fender.

Claim 12 depends from Claim 11, and is thus also patentable over Choo and Fender.

Claims 13 and 14 are rejected under 35 USC 103(a) as being unpatentable over Choo in view of Fender and further in view of Jeromin. Claims 13 and 14 depend from Claim 11 and as mentioned above, Choo and Fender fail to disclose all the limitations of Claim 11. As Jeromin fails to cure the deficiency in Choo and Fender, Claims 13 and 14 are patentable over Choo, Fender, and Jeromin.

Claim 15 is rejected under 35 USC 103(a) as being unpatentable over Choo in view of Fender and Jeon. Claim 15 depends from Claim 11 and as mentioned above, Claim 11 is patentable

over Choo and Fender. As Jeon fails to cure the deficiency in Choo and Fender by teaching the limitations that Choo and Fender fail to teach, Claim 15 is patentable.

CONCLUSION

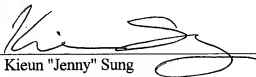
For the reasons stated above, Claims 4-15 are now in condition for allowance. The Director is hereby authorized to charge any deficiency in fees, or credit any overpayment, to Deposit Account No. 50-2257. Please telephone the undersigned attorney at (408) 392-9250 if there are any questions.

Respectfully submitted,

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